Bids received until Mar. 18, 1915.

Kings Park State Hospital

Kings Park, N. Y.

Sealed proposals for additional accommodations for chronic patients, construction; heating; plumbing and drainage and electric work at Kings Park State Hospital, Kings Park, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until 2:30 o'clock P.M. on Thursday, March 18, 1915, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed and shall be accompanied by a certified check in the sum of $2025.00 for Proposal No. 1 Construction Work; in the sum of $675.00 for Proposal No. 2 Construction Work; in the sum of $450.00 for Proposal No. 1 of Heating Work; in the sum of $150.00 for Proposal No. 2 of Heating Work; in the sum of $400.00 for Proposal No. 1 of Plumbing Work; in the sum of $150.00 for Proposal No. 2 of Plumbing Work; in the sum of $150.00 for Proposal No. 1 of Electric Work; and in the sum of $50.00 for Proposal No. 2 of Electric Work. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent. of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of specifications Nos. 2128, 2134, 2135 and 2136. The right is reserved to reject any or all bids. Drawings and specifications may be consulted at the Kings Park State Hospital, Kings Park, N. Y.; at the New York office of the Department of Architecture, Room 1224, Woolworth Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings and specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon the deposit of a certified check in the sum of $10.00 made payable to the State of New York, for each set of plans and specifications, which check will be returned if plans and specifications are sent back in good condition to the State Architect, Lewis F. Pilcher.

E. S. ELWOOD, Secretary.

Dated Albany, N. Y., February 27, 1915.

Bids received until Mar. 10, 1915.

Track Material

PORT COMMISSIONERS OF JACKSONVILLE.
Engineer's Office.
Jacksonville, Fla., Feb. 18th, 1915.

Sealed proposals will be received until 12 o'clock noon on Wednesday, March 10th, 1915, and then publicly opened by the Port Commissioners of Jacksonville, Florida, Room 314 Realty Bldg., for furnishing track material as follows:

Item No. 1 660 gross tons of 70-lb. rail.
Item No. 2 40 tons four bolt angle splice bars.
Item No. 3 3 tons bolts and nuts.
Item No. 4 18 tons spikes.
Item No. 5 45 turn-outs including switches, frogs and switch stands.

Bids will be considered on both "Open Hearth" or "Bessemer" Steel.

Above quantities are only approximate.

Specifications may be obtained from the Chief Engineer.

The Port Commission reserves the right to reject any or all bids, or items thereof as may seem to their best advantage.

F. W. BRUCE, Chief Engineer.

Bids received until Mar. 17, 1915.

Filtration Plant—Contract No. 6

Cleveland, Ohio.

Sealed bids or proposals for constructing a filtered water reservoir will be received at the office of the Commissioner of Purchases and Supplies, No. 511 City Hall, Cleveland, Ohio, till 12 o'clock noon of March 17, 1915.

The principal items are

Excavation and backfilling.....	78,000 cu.yds.
Concrete masonry	26,500 cu.yds.
Steel reinforcement	520,000 lbs.

Plans and specifications containing proposal blank may be obtained after March 3, 1915, on deposit of $25.00 with the Commissioner of Water, No. 413 Superior Ave., Cleveland, Ohio, which deposit may be redeemed on return of the plans in good condition.

No proposal will be entertained unless made on the proposal blank above mentioned and delivered at the office of the Commissioner of Purchases and Supplies previous to 12 o'clock noon on the day specified.

The City reserves the right to reject any and all bids.

Bids received until Mar. 12, 1915.

Five Pumping Engines

MAYFAIR PUMPING STATION.
Department of Public Works.
Chicago, February 17, 1915.

Sealed Proposals will be received by the City of Chicago until 11 A.M. Friday, March 12th, 1915, at Room 406 City Hall, and then publicly opened, for furnishing and erecting five pumping engines at the Mayfair pumping station, Chicago, as follows:

Three pumping engines, capacity 25 million gallons per day, normal head 140 ft.

Two pumping engines, capacity 17½ million gallons per day, normal head 200 ft.

The contract includes discharge piping and suction connections for seven engines, according to Plans and Specifications on file in the office of the Department of Public Works of said City, Room 406 City Hall.

Proposals must be made out upon blanks furnished at said office, and be addressed to said Department, indorsed "Proposals for Five Pumping Engines, Mayfair Pumping Station," and be accompanied with Twenty-five Thousand Dollars in money or a certified check for the same amount on some responsible Bank located and doing business in the City of Chicago and made payable to the order of the Commissioner or Public Works.

The Commissioner of Public Works reserves the right to reject any or all bids.

A deposit of three hundred dollars ($300.00) will be required to insure return of plans and specifications.

No proposal will be considered unless the party offering it shall furnish evidence satisfactory to the Commissioner of Public Works of his ability, and that he has the necessary facilities together with sufficient pecuniary resources to fulfill the conditions of the Contract and Specifications, provided such Contract should be awarded to him.

Companies or firms bidding will give the individual names as well as the name of the firm with their address.

L. E. McGANN,
Commissioner of Public Works.

Bids received until Mar. 16, 1915.

Proposals for Oiling

State of Maryland
STATE ROADS COMMISSION
601 Garrett Building,
Baltimore, Md.

SEALED PROPOSALS for oiling 7 sections of State Highway, aggregating about 475 miles in length and requiring approximately 1,278,300 gallons of oil, as follows:

	County	Miles	Gallons
Salisbury Residency...	Worcester Somerset Wicomico Dorchester Caroline	55.33	145,680
Chestertown Residency	Talbot Queen Anne Kent Cecil	61.96	156,037
Baltimore Residency..	Harford Baltimore	83.88	238,776
Frederick Residency...	Frederick Carroll Howard	90.56	231,184
Cumberland Residency.	Washington Allegany Garrett	79.10	206,036
Hyattsville Residency..	Montgomery Washington Boulevard Annapolis Boulevard	70.86	215,758
La Plata Residency....	Charles St. Mary's Prince George	34.14	84,832

will be received by the State Roads Commission, at its offices, 601 Garrett Building, Baltimore, Md., until 12 M. on the 16th day of March, 1915, at which time and place they will be publicly opened and read.

Bids must be made in writing for the work outlined in each Residency and upon forms which will be furnished by the State Roads Commission. Specifications will be furnished by the Commission upon application.

The successful bidder will be required to give a $5,000.00 bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission, this 1st day of March, 1915.

O. E. WELLER, Chairman.

WM. L. MARCY, Secretary.

Bids received until Mar. 18, 1915.

Notice to Dredging Contractors

Xenia, Ohio.

Sealed bids are invited and will be received at the office of the Board of County Commissioners of Greene County, Ohio, up until 10 o'clock A.M., Thursday, March 18th, 1915, for the excavation of 144,183 Cubic Yards of earth, all of which is designed as floating dredge work, except about 1040 Cubic Yards which is designed as team work.

The work consists of the following:

Six & $^{3}/_{100}$ miles, 14 ft. bottom, ½ to 1 slopes, 143,140 Cubic Yards (Dredge Work),

$^{20}/_{100}$ miles, 14 ft. bottom, ½ to 1 slopes, 1043 Cubic Yards (Team Work).

Bids may be made for the whole or any part thereof. The right is reserved to reject any or all bids.

A deposit of a certified Check upon an active and going bank, payable to the order of the Board of County Commissioners of Greene County, Ohio, in the sum of Five hundred dollars, must be made by the successful bidder as a forfeit that he will enter into contract and give bond for the performance of the work.

The work is located at Alpha station, twelve miles east of Dayton, on the P. C. C. & St. L. Railway, the C. H. & D. Railway; and the Dayton & Xenia Traction Railway. It consists of, the deepening, widening and straightening of a stream called Beaver Creek. The work is located in a good country, with good gravel pikes.

Contractors are advised to see this piece of work.

Maps, profiles and specifications, or other information may be had by calling on or writing the County Surveyor and Engineer.

Board of County Commissioners of Greene County, O.,
By GEO. W. KENDALL, Clerk.

Xenia, Greene County, Ohio, February 25th, 1915.

Bids received until Mar. 10, 1915.

Road Roller, Mixer, etc.

Sharon, Pa.

SEALED PROPOSALS will be received by the undersigned, Secretary of the Borough of Sharon, until 12 o'clock noon, Wednesday, March 10, 1915, for the following machinery, to wit:

One 3-wheel road roller weighing approximately ten (10) tons.

One batch concrete mixer with gravity distributor and traction drive.

Two 5-barrel heating kettles.

Plans and specifications must accompany each bid. Bidders will also be required to state shortest time delivery and be prepared to furnish bond of $100 to insure delivery in time specified.

The Street Committee and Paving Committee will meet on Wednesday evening, March 10, 1915, at 7 o'clock p.m. to open bids. Recommendations for purchase will probably be made at meeting of Council on March 11, 1915.

BOROUGH OF SHARON,
CLAUDE B. LARTZ, Secry.

Bids received until Mar. 15, 1915.

Paving

Rockford, Ill., Feb. 24, 1915.

Sealed proposals will be received until 11 o'clock A.M. March 15, 1915, at the office of the President of the Board of Local Improvements of the City of Rockford, Illinois, for furnishing material and paving with brick portions of Melrose Street and Clinton Street, and for macadamizing portions of Prospect Street, in the City of Rockford, Illinois.

Approximate quantities:

Melrose Street—3450 cu.yds. excavation, 6500 sq.yds. brick pavement on concrete base, and 5270 lin.ft. cement curb and gutter.

Clinton Street—2930 cu.yds. excavation, 5900 sq.yds. brick pavement on concrete base, and 4690 lin.ft. cement curb and gutter.

Prospect Street—2000 cu.yds. excavation, 9600 sq.yds. macadam pavement and 5150 lin.ft. cement curb and gutter.

Plans and specifications will be furnished upon application to the City Engineer.

W. W. BENNETT,
President Board of Local Improvements.

Bids received until Mar. 16, 1915.

Parkway Improvement

DEPARTMENT OF PUBLIC WORKS.
Office, 216 City Hall.
Philadelphia, February 20th, 1915.

Sealed proposals, endorsed, "Bids for Improvement of the Parkway," and addressed to the undersigned, at the office above mentioned, will be received until 12 o'clock, noon, on Tuesday, March 16th, 1915, and opened and read at that time in Room 225, City Hall, for the Improvement of the Parkway from 19th St. to 22nd St. and work incidental thereto.

Estimated quantities of work to be done are as follows:

Grading	30,000 cu.yds.
Asphalt Paving	33,000 sq.yds.
Vitrified Block Paving	3,400 sq.yds.
Granite Block Paving	3,500 sq.yds.
Sewers	800 lin.ft.
Concrete Curb	11,800 lin.ft.
Concrete Footways	14,500 sq.yds.
Topsoil	28,200 sq.yds.
Water Pipe	2,500 lin.ft.
Electrical Conduits	10,200 lin.ft.

Together with all incidental work, including the removal of existing structures, trees and planting, manholes, inlets, hydrants, etc.

A charge of five (5) dollars will be made for each set of specifications and drawings, which will be refunded upon the return of the unused specifications and drawings in good condition, or upon the return of the drawings in case a bid is submitted.

Specifications and blank forms upon which bids must be made, can be obtained upon application at the office of the Bureau of Highways, Room 232, City Hall.

No bid will be considered unless accompanied by a certificate from the City Solicitor that the provisions of an ordinance requiring proposal bonds when the bids exceed in amount five hundred dollars, approved May 25, 1860 (p. 81 West), have been complied with.

The Director reserves to himself the right to reject any or all bids, as he may deem best for the interests of the city.

M. L. COOKE, Director.

Bids received until Mar. 23, 1915.

Highway Work

OFFICE OF THE STATE COMMISSION OF HIGHWAYS
Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. Tuesday, March 23rd, 1915, for the improvement of Highways in the following counties:

Allegany (approx. length 9.52); Cattaraugus, 2 highways (6.98, 5.35); Columbia (approx. length 4.97); Chemung (approx. length 1.86); Erie (approx. length 4.48); Franklin (approx. length 0.22); Jefferson, 3 highways (2.86, 2.40, 0.51); Monroe (approx. length 0.66); Niagara (approx. length 8.33); Rensselaer (approx. length 2.11); Schuyler (approx. length 1.86); Putnam (approx. length 0.13); Sullivan (approx. length 8.51).

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the Division Engineers in whose division the road is to be constructed. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "INFORMATION FOR BIDDERS" in the itemized proposal, specifications and contract agreement.

EDWIN DUFFEY, Commissioner.
I. J. MORRIS, Secretary.

Bids received until Mar. 17, 1915.

Sanitary Sewers

Butte, Mont.

Sealed proposals for the construction of 13 miles of 8", 10" and 12" sanitary sewers for the South Side will be received by John C. Driscoll, City Clerk, until 5 o'clock P.M. Wednesday, March 17, 1915. Certified check for 10% of the amount bid must accompany all proposals.

Plans and specifications may be obtained at the office of the Commissioner of Public Works upon the deposit in the sum of $20.00, same to be refunded when plans and specifications are returned in good condition.

W. J. FLOOD,
Commissioner of Public Works.

Bids received until Mar. 23, 1915.

Street Improvements and Sewerage

Kinston, N. C.

Sealed proposals will be received by the City Council of the City of Kinston, N. C., at the City Hall in Kinston, N. C., until 5 P.M. March 23rd, 1915, for Street Improvements and Sewerage.

The work will consist of about:

12,000 sq.yds., or more, of Brick, Asphalt, Bitulithic, or other pavement.

30,000 lineal feet of concrete Curb and Gutter.

20,000 sq.yds. of Sidewalk.

8 miles of 8 to 18 inch pipe sewers.

Proposals must be marked, "Proposal for Street Improvements," or "Proposal for Sewerage."

All bids must be upon blank forms provided in the Proposal and Contract and Specifications.

Each bid must be accompanied by a certified check for $1000.00 as an evidence of good faith.

Plans and Specifications will be on file at the Clerk's Office in Kinston and at the office of the Engineer in Charlotte; and copies of the specifications, form of proposal, etc., will be mailed upon application to the Engineer at Charlotte, N. C., when accompanied by a check for ten dollars to insure their return within 30 days after the letting.

The right is reserved to reject any or all bids.

FRED I. SUTTON, Mayor.

Engineer: GILBERT C. WHITE,
Charlotte, N. C.

Bids received until Mar. 16, 1915.

Paving

Waycross, Ga.

Bids will be received by the Mayor and Board of Aldermen of Waycross, Ga., until 7:30 P.M., March 16th, 1915, for the construction of approximately 11,000 square yards of brick pavement on Carswell Avenue, on sand foundation (curbing already laid).

Plans and specifications on file at the office of the City Clerk.

A. C. LOWTHER, City Clerk.

Bids received until Mar. 16, 1915.

Paving and Sewer

Corning, N. Y.

Bids will be received by the Board of Public Works, until 12 M. March 16th, 1915, for 956 sq.yds. Brick Paving and 1852 lin.ft. 8" sanitary sewer and 1653 lin.ft. of 6" sanitary sewer.

WILLIAM O. DRAKE, Supt.

U. S. ENGINEER OFFICE, Chicago, Ill., Feb. 27, 1915.—Sealed proposals for dredging in Indiana Harbor, Ind., will be received at this office until 10 a.m. March 29, 1915, and then publicly opened. Information on application. W. V. JUDSON, Lt. Col., Engineers.

U. S. ENGINEER OFFICE, Newport, R. I., Feb. 27, 1915.—Sealed proposals for dredging in Providence Harbor, R. I., will be received at the U. S. Engineer sub-office, Federal Building, Providence, R. I., until 12 o'clock noon, Mar. 30, 1915, and then publicly opened. Information on application. JOHN MILLIS, Col., Engrs.

U. S. ENGINEER OFFICE, Wilmington, N. C., Feb. 10, 1915.—Sealed proposals for dredging in Neuse River, waterway from Pamlico Sound to Beaufort Inlet, and Beaufort Harbor, N. C., will be received at this office until 12 M., Mar. 9, 1915, and then publicly opened. Information on application. H. W. STICKLE, Maj., Engineers.

U. S. ENGINEER OFFICE, Room 707, Army Building, New York, N. Y., Feb. 11, 1915.—Sealed proposals for 20 tanks, from 2,250 to 5,700 gals. capacity, for Philippine Islands, will be received at this office until 12 M., March 9, 1915, and then publicly opened. Information on application. S. W. ROESSLER, Col., Engrs.

U. S. ENGINEER OFFICE, Charleston, S. C., February 17, 1915.—Sealed proposals for dredging in Ashley River, S. C., will be received at this office until noon, March 19, 1915, and then publicly opened. Information on application. G. A. YOUNGBERG, Major, Engrs.

U. S. ENGINEER OFFICE, Duluth, Minn., Feb. 24, 1915.—Sealed proposals for constructing and delivering complete the steel hull, 4½ yard dipper dredge, "Col. D. D. Gaillard," will be received at this office until 10 o'clock a.m., March 26, 1915, and then publicly opened. Information on application. E. D. PEEK, Major, Engrs.

Bids received until Mar. 22, 1915.

City Hall

City of Watervliet, N. Y., February 27th, 1915.

Sealed proposals for the erection of a City Hall for the City of Watervliet, Albany County, N. Y., under the plans and specifications prepared by Messrs. Demers, Mosley & Campaigne, Architects, of Troy, N. Y., will be received by the Board of Contract & Supply of the City of Watervliet, N. Y., at its office, No. 1520 Broadway, Watervliet, N. Y., until Monday, March 22nd, 1915, at 2 o'clock P.M.

Each proposal for the complete work or any part of same must be filled out and signed by the bidder, together with a certified check for a sum equal to five per centum of the bid, payable to the Chamberlain of the City of Watervliet, N. Y., and placed in an envelope sealed and marked "Proposal for the Erection of City Hall, Watervliet, N. Y.," and delivered to the Clerk of the Board of Contract & Supply. Only such proposals so left and signed, accompanied with check, will, at that hour and place, be received. Bids will be acted on within one calendar month. The Board of Contract & Supply reserves the right to reject any and all bids. Plans and specifications are on file at the office of the Board of Contract & Supply, No. 1520 Broadway, Watervliet, N. Y., and also at the office of Messrs. Demers, Mosley & Campaigne, No. 203 Illium Building, Troy, N. Y. Bidders may obtain copies of same from the Clerk or architects by enclosing a check for $25.00 payable to the architects' order, and to be held by them until the return of plans and specifications.

BOARD OF CONTRACT & SUPPLY,
By WILLIAM B. DAUBNEY, Clerk.

DEMERS, MOSLEY & CAMPAIGNE, Architects,
Troy, N. Y.

Bids received until Mar. 10, 1915.

Proposals for Street Paving

Angola, Indiana.

Sealed Proposals will be received at the City Clerk's office, Angola, Indiana, until Wednesday, March 10, 1915, at 1:30 P.M., for curbing and paving E. Maumee St., being about 8400 sq.yds., in accordance with Plans and Specifications now on file in the City Clerk's office. Specifications may be obtained from Clark F. Powers, City Engr.

ROY HIRST, City Clerk.

Wagons

The Siamese Royal Railway Department invites bids for 159 Goods and Cattle Wagons and spare parts. Specifications and drawings may be had from the Siamese Legation, Washington, D. C., on payment of fee of $4.00.

DEPARTMENT OF COMMERCE, Lighthouse Service, Office of Inspector, 3d Dist., Tompkinsville, N. Y., Mar. 3, 1915.—SEALED PROPOSALS will be received at the office of the Lighthouse Inspector, Tompkinsville, N. Y., until 2 o'clock p.m. April 6, 1915, and then opened, for furnishing and delivering f.o.b. and secured on cars place of manufacture, twenty first-class Iron Sinkers and two mammoth whistling buoys. Blank proposals and particulars may be obtained by addressing the Lighthouse Inspector, Tompkinsvile, N. Y.

U. S. ENGINEER OFFICE, Galveston, Texas, February 15, 1915.—Sealed proposals for jetty and dike work at Aransas Pass, Texas, will be received at this office until 12 M., March 16, 1915, and then publicly opened. Information on application. C. S. RICHE, Lieut. Colonel, Engineers.

U. S. ENGINEER OFFICE, 602 Burke Bldg., Seattle, Wash., Feb. 3, 1915.—Sealed proposals for pumping plant for Lake Washington Canal locks will be received at this office until 12 noon, March 15, 1915, and then publicly opened. Information on application to U. S. Engr. Office, Seattle, Wn., Chicago, Ill., or New York, N. Y. J. B. CAVANAUGH, Maj., Engrs.

PROPOSALS FOR RIVER BANK PROTECTION—U. S. Engineer Office, Customhouse, St. Louis, Mo., February 8, 1915.—Sealed proposals for 10,000 linear feet of river bank protection, to include materials and work, will be received at this office until 11 A.M., March 10, 1915, and then publicly opened. Information on application. C. McD. TOWNSEND, Col., Engineers.

U. S. ENGINEER OFFICE, New London, Conn., Feb. 18, 1915.—Sealed proposals for dredging in the Connecticut River below Hartford, will be received here until 2 o'clock p.m., Mar. 18, 1915, and then publicly opened. Information on application. G. B. PILLSBURY, Major, Engrs.

Classified Advertising

Positions Wanted, 3 cents a word, minimum charge 50 cents an insertion, payable in advance.

Positions Open, (Civil Service Examinations), **Employment Agencies** (Labor Bureaus), **Business Opportunities, Wanted** (Agents and Salesmen—Contract Work), **Miscellaneous** (Educational—Books), **For Sale,** 5 cents a word, minimum charge $1.00 an insertion.

Count four words for keyed address care of New York; five for Chicago. Abbreviated words or symbols count as full words.

Copy should reach us not later than 10 A.M. Wednesday for that week's issue. Answers addressed to our care, Tenth Avenue at Thirty-sixth St., New York or 1144 Monadnock Block, Chicago will be forwarded (excepting circulars or similarliterature).

No information given by us regarding keyed advertiser's name or address. Original letters of recommendation or other papers of value should not be inclosed to unknown correspondents. Send copies.

Advertisements calling for bids, $3.60 an inch per insertion. N

POSITIONS WANTED

Mechanical and Electrical Engineers

MECHANICAL ENGINEER, 35, technical school and 12 years' broad experience; New York interview. P. W. 881, Eng. News.

Civil Engineers

ENGINEER, 14 years' experience; surveys on railroad location and construction, irrigation, drainage, United States Geological, subdivisions, flood prevention and sewers. Flitman, 374 Fortieth Ave., Milwaukee.

CIVIL ENGINEERING GRADUATE desires position as instrumentman. P. W. 833, Eng. News.

CIVIL ENGINEER, 30; single; eight years drainage, municipal, etc.; now in Southwest. P. W. 886, Eng. News.

EXPERIENCED CIVIL ENGINEER, graduate, desires position as rodman or chainman; go anywhere. P. W. 908, Eng. News, Chicago.

GRADUATE CIVIL ENGINEER; six years' experience, structural drafting railroad work and factory construction. P. W. 906, Eng. News.

SEVENTEEN YEARS' EXPERIENCE, water-supply, irrigation, power, subways, canals, locks, dams, sanitary engineering; will consider position or business proposition; New York City preferred. P. W. 907, Eng. News.

GRADUATE CIVIL ENGINEER; 9 years' experience; 4 in Latin America, railroads, docks, bridges, sugar mills, drainage surveys; American Society Associate Member; speak Spanish. P. W. 894, Eng. News.

CIVIL ENGINEER AND SUPERINTENDENT; Associate Member American Society; 8 years' experience, railroads, construction and maintenance bridges, docks, buildings, drainage and surveys; references. P. W. 893, Eng. News.

CIVIL ENGINEER, 27; five years' experience; railroad, city, land, surveys; building, bridge, construction; river improvement; competent construction man; efficient instrumentman; will consider any offer; location immaterial. P. W. 961, Eng. News, Chicago.

SUPERINTENDENT, CIVIL ENGINEER, formerly connected in responsible capacity with some of the best known national contracting firms; experienced in all classes construction work; appraising, estimating, securing contracts, etc.; have worked abroad; speak Spanish; location immaterial. P. W. 959, Eng. News.

CIVIL ENGINEER, graduate; 12 years' practical experience with consulting engineers and utility companies; waterworks and other utilities; investigations, reports, design, construction, appraisals; references. P. W. 958, Eng. News.

CIVIL ENGINEER; good technical education; six years' experience in field, drafting and design, timber, steel and concrete structures (specializing in reinforced concrete); tracks, yards and earthwork; on heavy railroad construction and Panama Canal. P. W. 957, Eng. News.

CIVIL ENGINEER, technical graduate; 24; two years' experience, railroad maintenance and reinforced-concrete bridge design and construction. P. W. 947, Eng. News.

CIVIL ENGINEER, graduate; 24; one year's excellent experience with U. S. Army Engineers; at present employed; desire change for better; salary not the main object. P. W. 955, Eng. News.

SUPERINTENDENT AND CIVIL ENGINEER wishes to locate with contractor, engineer or prominent industry; five years' experience in open and pneumatic construction in U. S. and Canada; shafts, piers, Ohio River dams, etc.; good executive, handle office work, purchasing, plant layouts, design equipment, etc. P. W. 950, Eng. News.

CIVIL ENGINEER; with 12 years' experience on railroad location and construction, sewers, reinforced concrete construction and municipal engineering is open for engagement. Associate Member, American Society of Civil Engineers. P. W. 930, Eng. News, Chicago.

GRADUATE CIVIL ENGINEER; 14 years' experience, including municipal, development of large tracts and farm surveys, railroad, stadia, triangulation, computating, drafting and general field and office work. Salary reasonable; good reference; 35 years old. P. W. 934, Eng. News.

GRADUATE CIVIL ENGINEER with long experience in general engineering work would like to take charge of engineering work of borough or town; can furnish all instruments; salary reasonable. P. W. 935, Eng. News.

CIVIL ENGINEERING GRADUATE, desires position, New York or Central States, 2 years' experience office and field. Salary no object. P. W. 941, Eng. News.

YOUNG WIDE-AWAKE CIVIL ENGINEER. Former county engineer. Wide experience in highway, reinforced concrete, structural and difficult foundation work. A-1 labor organizer. Highest credentials in regard to ability and results. P. W. 942, Eng. News, Chicago.

GRADUATE ENGINEER, available immediately; 8 years' experience, 5 in charge of work; reinforced concrete, hydroelectric developments, including investigation and construction, brick pavements and railroads; excellent references. P. W. 940, Eng. News.

Bridge and Structural

STRUCTURAL ENGINEER, expert designer, efficient planning and handling complicated structures, wants responsible position. P. W. 954, Eng. News.

DRAFTSMAN; 10 years designing, detailing, estimating, general structural work; 10 years' general engineering. P. W. 943, Eng. News.

Surveyors

RAILROAD RODMAN TOPOGRAPHER, just off 10 month job. Want similar position. P. W. 922, Eng. News.

INSTRUMENTMAN; technical training, five years' experience, married, open for engagement Apr. 15. Address Box 164, Dallas, Penn.

Draftsmen

DRAFTSMAN, engineering and architectural; industrial plants; general construction and transit work; nine years' experience; references. P. W. 962, Eng. News.

FIRST-CLASS STRUCTURAL SQUADMAN and checker; 12 years' experience mill and office buildings, bridges, etc., with leading companies; desires position. P. W. 949, Eng. News.

DRAFTSMAN; three years with architects on building construction and three years at steel detailing; desires position. P. W. 956, Eng. News.

CHIEF DRAFTSMAN; executive, energetic man, 31, married, possessing good education, executive ability, initiative; varied mechanical, structural experience, now engaged as chief draftsman, desires similar position or as assistant superintendent. P. W. 937, Eng. News.

Superintendents, Etc.

ESTIMATOR, general building construction, graduate civil engineer, 10 years' experience, reliable, hustler, wants change, New York location. P. W. 769, Eng. News.

SUPERINTENDENT, experienced in highway, park and sewer construction, also in quarrying and crushing stone; estimator and organizer; go anywhere. P. W. 831, Eng. News.

SUPERINTENDENT OR GENERAL FOREMAN; past four years in charge unit methods of construction; also general experience in industrial buildings construction; age 31; unmarried; will go anywhere. P. W. 902, Eng. News, Chicago.

SALES ENGINEER, college graduate, seven years' engineering experience, mechanical and structural steel, wants to get into the selling end on salary or to take agency. P. W. 918, Eng. News, Chicago.

SUPERINTENDENT OR GENERAL FOREMAN; 15 years' experience in office and factory building; dam, power and filtration plant construction, government and city work; contractors' plants erected and maintained at low cost; thorough knowledge of carpentry, steel and concrete work. P. W. 960, Eng. News.

Y. M. C. A. BUILDERS—Superintendent and estimator on this class of work wants position. P. W. 948, Eng. News.

EXPERIENCED FOREMAN (with or without gang) seeks position on construction work; best reference. P. W. 952, Eng. News.

SUPERINTENDENT OF CONSTRUCTION; 35; 15 years' practical experience reinforced-concrete bridges, industrial buildings, dams, viaducts, etc.; good organizer; can produce results; best references; anywhere. P. W. 928, Eng. News.

ENGINEER, 28, two years' experience on New York State highway construction; good instrumentman, estimator, supervisor of construction; technical graduate; desires position with contractor or consulting engineer. P. W. 945, Eng. News.

STRUCTURAL SALES ENGINEER wants position of greater opportunity; M. Am. Soc. C. E.; 20 years' experience as structural engineer, eight years in Pittsburgh, 10 in New York City; now employed as contracting and general engineer for structural steel fabricating plant in Ohio; close to market in my quotations, getting nearly half of proposals submitted to date and none at loss from errors; expert in analyzing and estimating structural steel of every description. P. W. 946, Eng. News, Chicago.

CONSTRUCTION ENGINEER, 25, graduate; just back from South America; five years' experience as construction engineer in Latin-America; speaks Portuguese and Spanish; will go anywhere; first-class references. Box 162, Poughkeepsie, N. Y.

CONTRACTORS' ENGINEER AND ESTIMATOR; 17 years' experience roads, sewers, pavements, tunnels, dredging, concrete work, bridges, bulkheads, water-front improvements. P. W. 913, Eng. News.

CONTRACTORS' ENGINEER AND MANAGER will consider proposal from outside contracting company for services in Detroit, bidding for new work and managing construction. P. W. 923, Eng. News, Chicago.

SUPERINTENDENT OR MASTER MECHANIC; twenty six years' experience in shovels or dragline, best reference. Can run shovel. P. W. 925, Eng. News.

GRADUATE, ARCHITECTURAL ENGINEERING, 27, 2½ years' field and drafting experience, will start low with reputable architectural or building concern. Location immaterial. P. W. 926, Eng. News.

ELECTRICAL ENGINEER, technical graduate with three years' experience in design and development work and one year experience in consulting work would like position with consulting or manufacturing concern. Willing to go any where at moderate salary. Best of references. P. W. 927, Eng. News, Chicago.

GENERAL FOREMAN—Concrete of all kinds. Thoroughly familiar with form building, carpentry, reinforcement, and plant installation. Capable of taking full charge. P. W. 929, Eng. News.

SUPERINTENDENT over twenty years' practical experience, making detail, reports recommending and repairs old buildings, supervising and erecting large modern buildings, receiving estimates, letting contracts, etc. A valuable man for architect or owner wanting active, reliable and trustworthy man of large experience, well recommended. P. W. 931, Eng. News, Chicago.

FOREMAN—Experienced in construction of street and highway work, also estimating and designing of reinforced concrete structures. Can start at once, go anywhere. P. W. 932, Eng. News.

AS FOREMAN, on road and grading work. References unquestionable. G. E. Sargent, Waterbury, Vermont.

SUPERINTENDENT OR GENERAL FOREMAN, ten years' experience reinforced-concrete buildings; high experience with chutes; sober; highest reference. P. W. 921, Eng. News.

POSITIONS OPEN

EXPERIENCED STRUCTURAL ENGINEER, estimator and contractor. Must be capable of making detailed estimates of steel and iron work from architect's plans. Must be capable of designing. Must be graduate engineer. No one need apply unless experienced. State age, salary desired and give references and selling experience. P. 924, Eng. News, Chicago.

STRUCTURAL ESTIMATOR and salesman, experienced on light structural work and miscellaneous iron work; New York location; must have clean record; give full details and references in first letter. P. 963, Eng. News.

ENGINEER, familiar with New York building code to design structural steel for buildings. One who has had responsible charge of drafting department with mill or steel contractors, preferred. Permanent position. Address with particulars. P. 939, Eng. News.

INSTRUCTOR to handle part of work in structural engineering in an Eastern college; must be graduate in civil engineering with teaching and practical experience; salary $1000 to $1200; work begins April 1. Address with full statement as to education, experience and references. P. 951, Eng. News.

Employment Agencies

The Employment Agencies advertising in this paper agree to refund any registration fee on demand any time within the first six months when no position is secured.

TECHNICAL ENGINEERS in every line for available positions; employers and applicants write The Toledo Engineering Agency, Toledo, Ohio.

LABOR BUREAUS

SPECIAL ADVANTAGES to contractors or others employing skilled or unskilled laborers. Commissary privileges optional. Central Labor Agency, 139 Mulberry St., New York. (Telephone 8970 Canal.)

EXPERIENCED FOREMAN seeks position on construction work; will furnish all necessary labor; best reference. L. B. 953, Eng. News.

WANTED

INDEX TO VOL. 71 (Jan.-June, 1914) and copies of Jan. 28, 1915, "Engineering News." Will pay 20 cents each. Subscription Department, Eng. News.

AGENTS AND SALESMEN

ENGINEERING REPRESENTATIVES—Agents with offices in all parts of the United States to represent the Thomas Method of reinforced concrete bridge construction. W. M. Thomas, 915 Hibernian Bldg., Los Angeles, Calif.

YOUNG MAN, 25, speaking Spanish and Portuguese, university and business college graduate, five years in Latin-America, wishes employment with manufacturer or exporter, object being salesman or agent in Latin-America; first-class references. P. O. Box 162, Poughkeepsie, N. Y.

MISCELLANEOUS

CHARTS FOR REINFORCED-CONCRETE BEAM DESIGN according to report of Joint Committee (Nov. 20, 1912). Rational and economical. Price, 40 cents. C. Siquot, 6 East German St., Baltimore, Md.

BUSINESS OPPORTUNITIES

ENGINEER, mechanical and structural experience, with small capital, wants connection with established engineering, contracting or manufacturing firm, as partner; Milwaukee or Chicago location preferred. B. O. 917, Eng. News, Chicago.

ENGINEER'S GRAND OPPORTUNITY—Long-established young contractor with unquestionable reputation and expert knowledge in the economical construction of public and private work and with exceptional ability in securing and executing profitable contracts desires to meet young graduate civil engineer who is willing to learn the contracting and construction line and take an active interest with an investment of from $15,000 to $25,000. B. O. 872, Eng. News.

ENGINEER—Established public service engineering and contracting corporation wants engineer. Investment $2000. Good salary to start. Must locate in Chicago. Personal interview necessary; quick action. B. O. 938, Eng. News, Chicago.

GRADUATE CIVIL ENGINEER; 14 years' experience in general field and office work desires to purchase engineering business, paying $1500 to $2000 yearly or buy interest in reliable firm; good references. B. O. 936, Eng. News.

FOR SALE

ENGINEERING NEWS, volumes 59-72, bound. F. S. 944, Eng. News.

TEN VOLUMES "ENGINEERING NEWS," 1903 to 1907, inclusive, bound in half leather, perfect condition; will sell for best offer. Also Transactions Am. Soc. C. E., 1907-8-9, bound in cloth. A. Nichols, Room 2013, Municipal Building, New York City.

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For Sale—Exchange—Rent—Wanted

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N

ADDRESSES

AVERY, Chas. F., 45 Broadway, New York, N. Y.
BECKWITH, J. S., 108 Park Way, N. S., Pittsburgh, Pa.
BRADEN, James C., 26 Cortlandt St., N. Y. City.
CARPENTER & Boxley & Herrick, Inc., 4th Ave. and 70th St., B'klyn, N. Y.
CONTRACTORS' Service Co., 50 Church St., N. Y. City.
DALLETT & CO., Harrison Bldg., Phila., Pa.
DOUGLAS, Geo. B., 29 Broadway, New York.
GIVIN Co., Herbert, 30 Church St., N. Y. City.
GRIMSHAW Co., Wm. B., 688 Drexel Bldg., Phila., Pa.
HITNER'S Sons Co., Henry A., Philadelphia, Pa.
HOISTING Engine Sales Co., 120 West 32d St., New York.
INGERSOLL, H. G., 76 William St., New York, N. Y.—Much of this equipment can be seen at work, vicinity N. Y.
LINES FLYNN Co., Inc., 30 Church St., N. Y. City.
MARINE Metal and Supply Co., 167 South St., N. Y. City.
NEW RIVER Co., The, Macdonald, W. Va.
PIPE & Contractors Supply Co., 3 Dover St., N. Y. City.
SAMPSON Co., Geo. H., 13 Pearl St., Boston, Mass., and 42 B'way, N. Y. C.; or Winston & Co., Brown Station, N. Y.
SCHMIDT, Jr., & Co., C. G. A., Empire Bldg., Phila., Pa.
SOUTHERN Iron & Equipment Co., Atlanta, Ga.
STALLEY, G. T., Box 390, Cleveland, Ohio.
WHITNEY, O. R., 39 Cortlandt St., N. Y. C. (Cort. 6095).

AIR COMPRESSORS

2—Ingersoll-Rand, Cross Compound steam and air cylinders with Corliss valve gear 2500 cu. ft. capacity.—SAMPSON.

2—Ingersoll-Rand, Cross Compound Steam and Air Cylinders with Corliss valve gear 3300 cu.ft. capacity. Boilers and Condensers with this plant. All in good condition. Bargain.—SAMPSON.

1—4700 Cu. Ft. Rand B. B. 3 Compound Steam and Compound Air Compressor with Condenser.—SAMPSON.

Several second-hand air compressors, steam and belt driven, straight line and two stage of various sizes from 70 to 1300 cu. ft. capacities. Good condition.—SAMPSON.

1—22x22-13-¼x24, Sullivan, steam driven, class WB 2, straight line, 2 stage, cap., 1160 cu. ft., 1—24x24x30, McKiernan, class A, straight line, steam driven, cap. 1414 cu. ft.; 1—24x24-¼x30, Ingersoll, class A, steam driven, straight line, cap. 1223 cu. ft., 2—16x20-¼x16, Ingersoll-Sargeant, class H-1, duplex, steam driven, cap 1540 cu. ft.—HITNER'S.

1 Blaisdell 16x10x10, 60 H.P., 342 cu.ft. First class condition.—THEO. SMITH & SONS CO., Jersey City, N. J.

Steam driven 3 Laidlaw-Dunn-Gordon duplex 2-stage, and 5 Norwalk tandem 2-stage, capacities 900 to 2100 cu.ft., condition excellent.—NEW RIVER.

3—24"x24"x30" Rand S. L. Price $1000 each.—L. F. SEYFERT'S SONS, INC., 437 N. 3rd St., Phila., Pa.

2 Norwalk 700 cu.ft. and 1200 cu.ft.; excellent condition. Reason for selling, mine worked out. No further use for same.—HANDY BROS. MINING CO., Bay City, Mich.

Belt driven, 1100-1200'; steam driven, 628-235'.—AVERY.

[Wanted]

Electric driven compressor (without motor) guaranteed in first class condition; 600 to 800 ft. per minute; for use at Toronto. Give make, location, age, condition and price.—CANADIAN STEWART CO., LTD., 30 Church St., New York, N. Y.

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[Wanted]

For use on Lake Ontario two boats, capacity 600 to 1000 tons, for carrying stone. Boats with modeled bow desired. Give present location, age, full description and price delivered at Toronto.—CANADIAN STEWART CO., LTD., 30 Church St., New York City.

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5—250 H.P. B. & W., 150 lbs. steam. Horizontal return tubular, 2—72"x20', 1—78"x20', 1—72"x18', 1—72"x15', 1—72"x14', triple riveted, butt strapped, 125 lbs. steam.—HITNER'S.

35, 60 and 80 H.P. loco. boilers—PIPE.

75 H.P. loco. type 100 lb. pressure allowed.—INGERSOLL.

BUCKETS

1—1 yd. Theo. Smith Orange Peel.—PIPE.

5—¾ cu. yd. standard clam shells.—STALLEY.

Orange peel—¾, 1, 1¼, 1½ yd. capacity; clam shell—½ to 3 yd. capacity.—GIVIN.

⅞ yd. orange peel Smith.—INGERSOLL.

1 "Haiss" ¾ yd. and 1 "Haiss" 1 yd. clamshell, in first-class shape; used short time. Digging teeth can be installed.—GEO. HAISS MFG. CO., 142nd St. and Rider Ave., N. Y. City.

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400' for sewer work. Carson-Lidgerwood eng.—INGERSOLL.

CARS

[Standard Gauge]

A number of 4, 6 and 12 yd., also small "V" body type.—SCHMIDT.

[36" Gauge]

100 Western 4-yd. dump and 26 Koppel steel concrete.—CARPENTER.

40—4 yd. Western dump.—INGERSOLL.

[24" Gauge]

1½ yd. Western with Vulcan Dinkey.—DALLETT.

10—1 yd. swivel end dump cars.—PIPE.

[Wanted]

30 dump cars, 36" gauge.—W. 899, Eng. News.

CRUSHERS

Farrel Jaw, 15x9, with screen and engine.—MARINE.

National Jaw, 14x8, on wheels.—MARINE.

Gyratory, Nos. 8, 7½, 6, 5, 4, 3.—GIVIN.

1 No. 2 Climax on trucks with 15' elevator with 18 H.P. mounted Climax portable engine and boiler.—BECKWITH.

7½ and 5 Gates—K; No. 6 McCully.—AVERY.

[Wanted]

Large jaw. State make, age and condition.—SCHMIDT.

DERRICKS

1 Steel stiff leg, 70' boom; 1 steel guy, 70' boom, 25 tons cap.; 1 steel traveling, 45' boom.—GIVIN.

5 traveling, 50 HP. Lambert elec. hoists.—CARPENTER.

Trav., 25' spread, 60' boom DD Mundy hoist.—INGERSOLL.

DREDGES

Hydraulic and dipper. Sale or charter.—GIVIN.

A 2½ yd., 80 ft. boom, vertical spuds, 2 boilers, loco. type, Marion deep water dredge, Factory No. 2219. Repairs kept up continually; in first class condition. Can be seen in operation 13 miles north of Las Animas, or 10 miles south of Arlington, Colo., during the next 60 days. Delivery can be made in April.—THE FORT LYON CANAL CO., Las Animas, Colorado.

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6 Ingersoll, type F-24, and 2 class "C" Little Giant, rock drills.—BECKWITH.

Keystone traction No. 3 with placer equipment located at Prescott, Ariz.—L. J. HOHL, 525 Market St., San Francisco, Calif.

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For sale at less than half cost. Sixty 300 C.P. D.C. 220 V. Nernst arc lamps, moon globes. In perfect running condition. Can be seen in use in our offices; $4 each. (Regular price, $9.50). Price includes drop lighting switch. Must sell as our voltage is 110 in new office. HILL PUBLISHING CO., 10th Ave. at 36th St., New York.

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1 8 H.P. Vertical Type Fairbanks with sub-base.—SAMPSON

FIRE ENGINES

2 Fire Engines, condition, first class.—HITNER'S.

HAMMERS

1 No. 4 Arnott.—PIPE.

Arnott steam pile, sizes 1, 2, 3 and 4.—GRIMSHAW.

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Several types, capacities up to 1200 HP.—NEW RIVER.

HOISTING ENGINES

Lidgerwood 10x12 D.D.D.C. side by side drums, 33" diam.—MARINE.

Lidgerwood, 5x8 D.D.D.C. with boiler.—MARINE.

1 3 drum National hoist 10x12 with boiler and three independent winch-heads, excellent condition; 4 7x10 D.C.D.D. Lidgerwood with boilers; 1 Lidgerwood D.C.D.D. with swinger, skeleton 7x10, and 1 National D.C.D.D. with swinger, skeleton 7x10.—PIPE.

2 Lidgerwood 14x18, D.C. 3-tandem drum, reversible link motion; 1 Lidgerwood, 10x12, D.C. S.D. reversible link motion; 1 Lambert, 10x12, D.C. D.D. with boiler; 2 Lambert, 8x10, D.C. D.D. with Mass. boilers; 1 Lambert 7x10, D.C. D.D. with boiler; 1 Mundy, 7½x10, D.C. D.D. with boiler; 1 Mundy, 6¼x10, D.C. D.D. with boiler; 1 O. & S. 6¼x8, D.C. D.D. with boiler. 2 Lidgerwood, 60 H.P. D.D. and swinger d.c. hoists.—HITNER'S.

9x10 Lidgerwood 3 drum—8¼x10 Lidgerwood D.D. with or without boiler or swinger. Other sizes.—GIVIN.

One—8¼x12 Flory, three drum and boiler.—SCHMIDT.

THREE HUNDRED hoists, 2 or 3 drum 7x10, 8¼x10, 9x10, 10x12, skeleton or boilers; 100 electric.—HOISTING.

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[Standard Gauge]

1 Porter, Std. G., 20-ton, 12x18, saddle tank.—DOUGLAS.

50 locomotives, Switch, Mogul, Consolidation, Ten Wheel and Saddle Tank types.—SOUTHERN.

2—40 ton switchers, overhauled.—CONTRACTORS S. CO.

[36" Gauge]

10 10x16" Porter, Davenport and Vulcans.—SOUTHERN.

5 9x14" Porters.—SOUTHERN.

2—9x14 Baldwin saddle tank.—BECKWITH.

5—10x16 Vulcans, 1911-12.—CONTRACTORS S. CO.

5—11x16 Vulcan dinkies 1936 to 2039.—CARPENTER.

3—9x14 Porter dinkies 3146 to 3589.—CARPENTER.

A number of 9x14 and 10x16.—SCHMIDT.

1—18 ton Porter; 1—18 ton American.—INGERSOLL.

[24" Gauge]

1—6x10 Porter, fine condition.—SCHMIDT.

1—7x12 Vulcan, 3 months old.—SCHMIDT.

[Wanted]

2 locomotives, 36" gauge.—W. 898, Eng. News.

To buy—a gasoline locomotive standard gauge.—Address J. LEOPOLD & CO., 233 Broadway, New York, N. Y.

LOCOMOTIVE CRANES

4 and 8-wheel, 10, 15 and 20 tons capacity.—HOISTING MACHINERY Co., 48 Church St., New York City.

4 and 8 wheel 10 and 15 ton.—CONTRACTORS S. CO.

15-ton Browning, 4-wheel, S. G., 50' boom.—DALLETT.

1—7 Ton, 4 wheel, Industrial, 21' boom; 1—15 ton, 8-wheel, Industrial, wrecking crane, 20' boom, goose neck.—HITNER'S.

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4 and 8 wheel, 10, 15, 20 and 25 tons capacity.—GIVIN.

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Hadsel 2 yd. Batch, with engine,—on channels.—MARINE.

Smith ¾ yd. Batch with engine,—on skids—MARINE.

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Portable plant, complete capacity 300-600 yds. per day; rare bargain.—LINES FLYNN.

1 cu.yd. Smith with engine on skids.—BECKWITH.

1 Eureka with 3 H.P. D.C. motor, continuous; 2 Austin cubes with engines and boilers on steel skids; 2—2½ Smiths with engines on wheels; 1 yd. and ½ yd. Ransomes on skids.—PIPE.

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[Wanted]

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1 Worthington Duplex 6x4x6.—MARINE.

1 Worthington Duplex 10x6x10.—MARINE.

2 Snyder-Hughes Vacuum 10x14x12 Simplex.—MARINE.

1 No. 486 Emerson, 4" suc., 3" dis.—MARINE.

Piston and plunger, sizes up to 12x12x12.—NEW RIVER.

2 Worthington 1,500,000 gal. Horizontal, Duplex Power, 14" diameter, 10" stroke.—WATER & LIGHT COMMISSION, Fergus Falls, Minn.

1 Compound duplex vertical center packed plunger, circulating pump, size 21—34x19—24, capacity 3500 gallons, 24 hours.—HITNER'S.

3 Underwriters fire pumps cheap.—WHITNEY.

2 Emerson steam pumps No. 4; 1 Cameron 10x10½x20 and other sizes.—PIPE.

Most items are signed with only part of the advertiser's name. Complete names and addresses in alphabetical order will be found under the heading "Addresses."

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500 tons first-class 56 and 60 lb. rail.—CARPENTER.

40 ton of 35 lb. with fish plates.—PIPE.

100 tons 40 to 50 lb. rails, ties, etc.—INGERSOLL.

[Wanted]

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First class 3-wheeled steam.—F. S. 779, Eng. News.

[Wanted]

Paving roller at a bargain. Send description and price to W. 780, Eng. News.

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500 gal. sanitary auto, street flushing mach.—INGERSOLL.

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Marion, model 60, steam shovel.—SOUTHERN.

1 ¾-yd. revolving traction, rebuilt.—LINES FLYNN.

1 70-ton Bucyrus, 2½ yd. dipper; Thew "O."—BRADEN.

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Thew "O" traction, high number, Mass. boiler.—DALLETT.

1 Model 0 Thew, built 1912, low price.—GIVIN.

1—Bucyrus, 18 B, traction revolving ⅞ yd.—GIVIN.

One—⅝ yd. Marion-Osgood. Traction.—SCHMIDT.

1 Bucyrus 14 B, new last August.—SCHMIDT.

1 Marion Model 60, 1439 with 1 standard and 1 special boom, and 1 Model 75, 2112.—CARPENTER.

2—70 ton Bucyrus 2½ yd. dippers.—INGERSOLL.

[To Let]

2 No. 0 Thew Revolving steam shovels with ⅝ yd. bucket.—F. O. JOHNSON, 70 Kilby St., Boston, Mass.

[Wanted]

¾ yd. traction type.—W. 900, Eng. News.

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1 15-ton electric 36' 6" span.—DOUGLAS.

One—with clam shell bucket, new and cheap.—WHITNEY.

TURBINES

2 Houston 44" Vertical, with beveled gears, shafting, etc.—WATER & LIGHT COMMISSION, Fergus Falls, Minn.

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Woolworth Building, 233 Broadway New York

DERRICKS CABLEWAYS

JOHN T. HORTON, M. E. Specialist in
92 West St., New York Hoisting Equipment

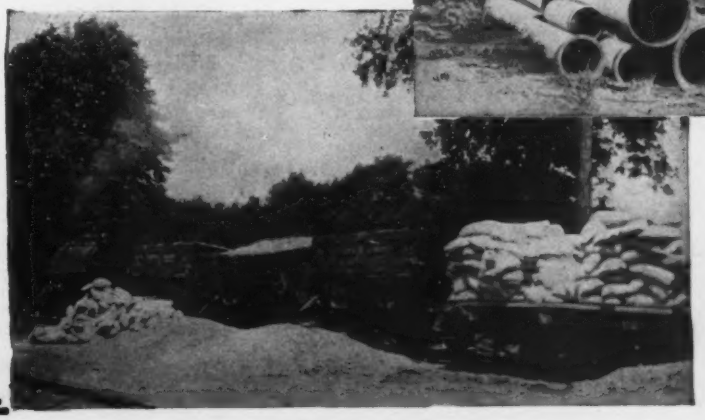
Cutting Haulage Costs 54% with WESTERN DUMP CARS

You will admit that is *considerable saving*, but it has been duplicated or beaten by Western Dumps many times. This job was a 21-mile highway between Zanesville and Hebron, Ohio. Narrow gage track was laid along the route between two material yards at either terminal, and two-yard Western Dump Cars, four cars to the train, were pulled by dinkies. Cost per yard-mile, 13c—cost per yard-mile by team haulage, 28c., according to contractors' estimate.

It pays to use these cars on any job from the Panama Canal (900 used) down.

Let us submit figures on your next material-handling job.

Glad to give you full details. Write for Catalog.



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It's preserved by water, not rusted or corroded by it. Easy and inexpensive to install. Best for municipal water supply, irrigation, hydro-electric power plants or out-fall sewers.

Redwood Tanks for Water and Crude Oil Storage Mining Plants.

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Our Engineering Corps will gladly go over any proposition you put up to them and submit suggestions and quotations covering any type of installation—large or small.

The "Hunt System" is known wherever economic conveying machinery has a use.
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Just say you are interested and we'll get busy.

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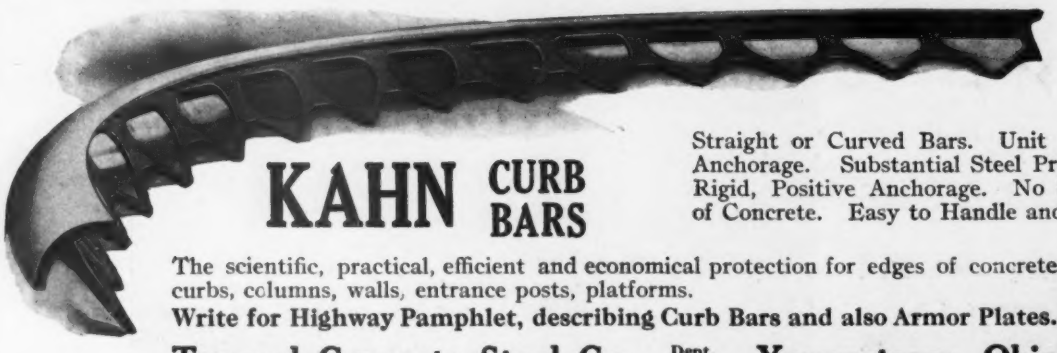

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Straight or Curved Bars. Unit of Plate Anchorage. Substantial Steel Protection. Rigid, Positive Anchorage. No Splitting of Concrete. Easy to Handle and Install.

The scientific, practical, efficient and economical protection for edges of concrete curbs, columns, walls, entrance posts, platforms.

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